Allied Vision

# Alvium 1800 U

## Alvium 1800 U-1242



Alvium 1800 U-1242 innovative USB camera with Sony IMX545 global shutter sensor provides industrial performance for cost effective embedded and machine vision applications.

### 一般

| | |
|---|---|
| 型號 | Alvium 1800 U-1242 |
| 產品系列 | Alvium 1800 U |
| 狀態 | Available |

### 感測器

| | |
|---|---|
| 感測器類型 | Area scan |
| 色度 | Color, Mono |
| 光譜 | Visible |
| 光譜範圍 | 300 nm to 1100 nm |
| 解析度 | 4,128 × 3,008 (12.40 MP) |
| 感測器型號 | Sony IMX545 |
| 感測器架構 (材料) | cmos |
| 快門類型 | Global shutter (GS) |
| 感測器尺寸 | 11.3 × 8.2 mm (14 mm, Type 1/1.1) |
| 像素大小 | 2.74 µm × 2.74 µm |

### 像素格式

| | |
|---|---|
| 感測器位深 | 12-bit |
| YUV 像素格式 | YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr |
| RGB 像素格式 | BGR8, RGB8 (default) |
| Bayer 像素格式 | BayerRG12 |

## 影像性能

| | |
|---|---|
| 量子效率 @ 529 nm | 68 % |

## 時序與增益

| | |
|---|---|
| 最大影格率 | 33 fps |
| 曝光時間 | 12 µs to 10 s |
| 增益 | 0.0 dB to 48.0 dB |

## I/O 與電源

| | |
|---|---|
| 非隔離線 | 4 programmable GPIOs |
| 電源供應 | Power over USB 3.1 Gen 1 \| External power 5.0 V |
| 功耗 | USB power: 3.4 W (typical) \| Ext. power: 3.6 W (typical) |

## 操作條件

| | |
|---|---|
| 操作溫度 (機殼) | -20 °C to 65 °C ((housing)) |

## 機械特性

| | |
|---|---|
| 機殼尺寸 (長 x 寬 x 高 mm) | 38 × 29 × 29 |
| 鏡頭接口 | C-Mount, CS-Mount |
| 重量 | 65 g |

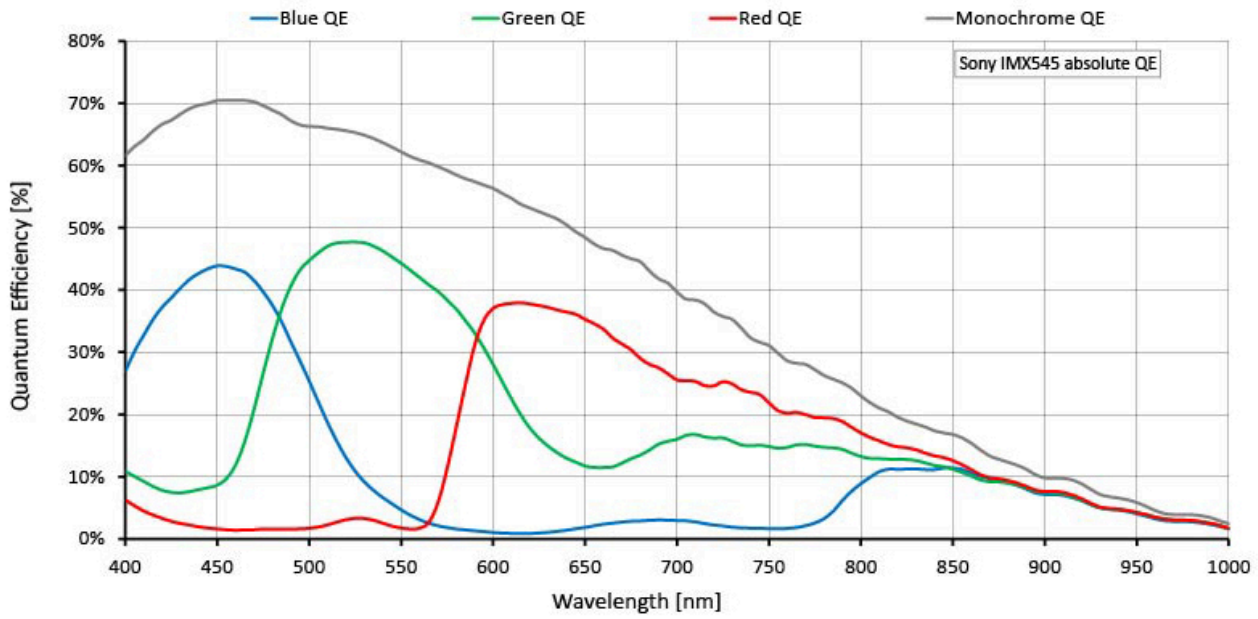
## 板載記憶體與 FPGA

| | |
|---|---|
| 影像緩衝區 (RAM) | 256 KByte |
| 非揮發性記憶體 (Flash) | 1024 KByte |

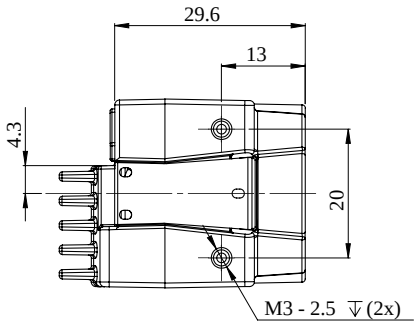
## 介面

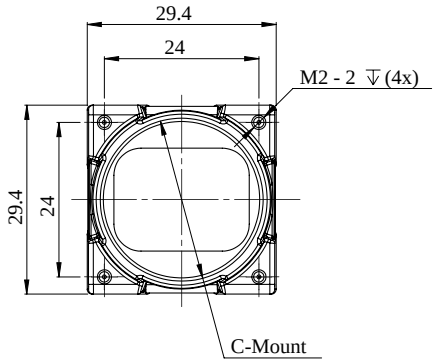
| | |
|---|---|
| 數位介面 | usb3.0 |
| 視覺標準 | USB3 Vision |

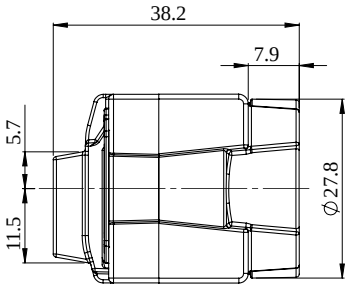
## 量子效率

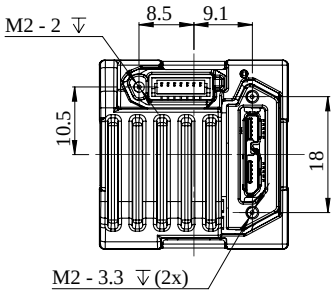

Blue QE
Green QE
Red QE
Monochrome QE
Sony IMX545 absolute QE
Quantum Efficiency [%]
80%
70%
60%
50%
40%
30%
20%
10%
0%
400
450
500
550
600
650
700
750
800
850
900
950
1000
Wavelength [nm]

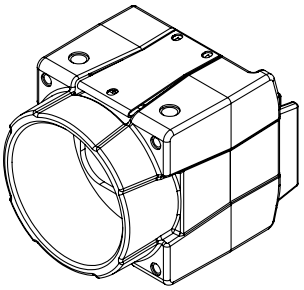
## 技術圖紙

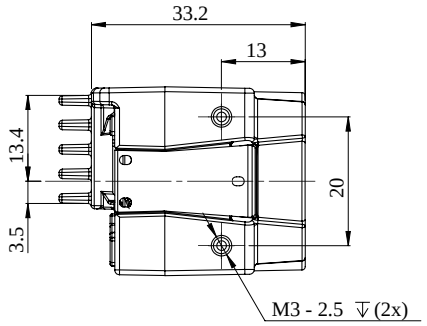

29.6
13
4.3
20
M3 - 2.5 ↧(2x)


29.4
24
M2 - 2 ↧(4x)
29.4
24
C-Mount


38.2
7.9
5.7
11.5
⌀27.8


M2 - 2 ↧
8.5
9.1
10.5
18
M2 - 3.3 ↧(2x)




33.2
13
13.4
20
3.5
M3 - 2.5 ↧(2x)

